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INSTALLATION INSTRUCTIONS

First, download and install the Visual C++ Redistributable Package: <u>https://support.microsoft.com/en-us/help/2977003/the-latest-supported-visual-c-downloads</u> <u>Select x86 or x64 depending</u> on machine; if in doubt choose x86

APPLICATION USE INSTRUCTIONS

Open the "passage barrier data portal" to determine which data will be analyzed in the FishPass run



The first page you see will allow you to choose between setting up an input file to run FishPass ("pre-process") or analyze the result of your FishPass output ("post-process")

Home Page

Welcome to the OptiPass Data Portal . The portal is designed for:
1) Generating formatted input files for OptiPass (the <i>Migratory Fish Passage Optimization Tool</i>) based on data contained in PAD (the California <i>Passage Assesment Database</i>); and
2) Summarizing results of OptiPass outputs for review and secondary analysis.
To continue, select either the Pre-Process button to generate an OptiPass input file or the Post-Process button to analyze an OptiPass output file.
Pre-Process Post-Process

Begin by selecting pre-process

Next, you will be able to choose your geographic scope, barrier passability, and focus on specific barrier ownerships

Barrier Status ?	Passability ?	Select All Unselec	
Total	0.00	🔽 City	✓ Primary or secondary school
Partial	0.50	College or university	✓ Private landowner - corporate
Temporal	0.50	Conservation group	✓ Private landowner - noncorporate
Temporal & Total	0.50	County	✓ Public utility
Temporal & Partial	0.50	✓ Federal agency	$\overline{oldsymbol{arsigma}}$ Soil and water conservation district
		C Local agency	Sporting group
arrier Mitigation Costs		₩ultiple/mixed	✓ State agency
amer Mugaton Costs		NA VI	✓ Tribe or tribal organization
Estimated costs	Cost Est.	▼ Natural Resource Commission	🔽 Unknown
 Unassigned costs 		⊽ Other	
ocus Regions		Spatial Organization	
Focus Regions	Central Coast ?	Spatial Organization Sub-basins (HUC8)	Sub-watersheds (HUC12)

First, the "Restore" and "Manual Input" buttons at the top of the page

Restore allows you to reset all selection criteria on this page to default settings **Manual input** allows advanced users to select criteria within the excel format "Pre-Mitigation Passability" allows the user to set the passability of barriers before mitigation

This includes passability of **total** (0%), **partial** (50%), **temporal** (50%), **temporal & total** (50%), and **temporal& partial** (50%) barriers.

"Barrier mitigation costs" refers to the cost to return a barrier passability to 100%

Estimated costs are conservative costs estimated by Donnie & Jesse. To modify, select the "cost estimate" button

Unassigned costs assume that barriers do not differ in terms of repair/removal cost.

"Focus Regions" allows users to select the geographic scope of the area of interest (North, CentralCoast, Central Valley and South Coast).

"Focus Organization" allows users to select the level of the watershed (sub-basin, watershed, sub-watershed) based on USGS's Watershed Boundary Dataset. This is used in Optipass.exe by users to further refine the analysis area confining the analysis to select watersheds (i.e., Mad River).

"Barrier ownership" allows user to further limit barriers to the type of barrier owner.

Then, select "Next" to determine habitat quantification.

Habitat Quantification

Restore

Weighting Method:	None		?
Salmon/Steelhead Weights:		Weights	?
ESU/DPS Sub-Weights			?
Coho ESUs:	Off 💌	Weights	
Chinook ESUs:	Off 💌	Weights	
Steelhead DPSs:	Off 💌	Weights	

Once again, "restore" will return values to default

"Weighting method" will allow user to determine if certain habitats or species should be preferred

None uses only net miles upriver

Species weighted allows bias for specific species target

Species + IP weighted - Note: There is still an option for this; however, IP data has been removed from the base data, so in the future this option will go away.

"Salmon/Steelhead Weights" allows preference for particular species. Note-ratings must be mathematically consistent adding up to 1.

Target	Rel. Weight
Coho	0.333
Chinook	0.333
Steelhead	0.333
Total	1.000

Furthermore, "ESU/DPS Subweights" will allow for further preference of particular unit

After selecting "Next", you will see a page with the weightings you have selected

Weightings Summar	у _	Exp	ort
	Rel. We	eight	Abs. Weigh

Salmon/Steelhead			
	Coho ESUs	0.333	0.333
	Chinook ESUs	0.333	0.333
	Steelhead DPSs	0.333	0.333

After review, select export to save the data, and name the file without the file extension (e.g., .txt). The .txt file will be saved in the same file folder where the data portal is located (i.e., "FishPass" file folder). It is advisable to name this file with "input_file" in the name.

Next, open FishPass by selecting "Optipass" > (select your version here. If in doubt, select x86) > Optipass application

For instructions on Optipass application use, navigate to page 24 in the user manual

Once you have solved and saved your analysis in Optipass, it is saved as another text file. Optipass prompts you for a location to save this text file and opens the folder where the Data Portal is by default. It is advisable to name this file with "output_file" in the name.

The text files from the Data Portal and Optipass exports are brought back into the Data Portal for "post-processing". This is where the results can be seen in a tabular form with map links to the locations of the results.

Within the FishPass folder, the "FishPassDemoFiles" sub-folder contains instructions and files created by the FishPass tool for an analysis run for the Ventura River watershed in California.

Another subfolder, "InputDataForFishPass", contains instructions for adding data to the FishPass tool (specifically to the Data Portal) that serves as the basis for the model. The subfolder includes the data that is used to update the 'PAD' sheet in the Data Portal. Please note that most but not all of these fields are used by the tool.